

Application No.: 10/074,600
Filed: February 12, 2002
TC Art Unit: 2157
Confirmation No.: 4837

REMARKS

The foregoing Amendment is filed in response to the official action dated September 6, 2006. Reconsideration is respectfully requested.

The status of the claims is as follows:

Claims 1-18 are currently pending.

Claims 1-18 stand rejected.

Claims 1, 3-4, 6-9, 11-12, and 14-18 have been amended.

Claims 5 and 13 have been canceled without prejudice.

The Examiner has rejected claims 1-18 under 35 U.S.C. 102(e) as being anticipated by Behzadi (USP 6,728,220). The Applicants respectfully submit, however, that base claims 1 and 9, as amended, and the claims depending therefrom, recite non-obvious subject matter that distinguishes over the art of record, and therefore the rejections of claims 1-18 under 35 U.S.C. 102 should be withdrawn.

For example, amended base claim 1 recites a data communications network that includes a plurality of data communications rings, namely, a first ring, a second ring, and a third ring. At least one of the rings, specifically, the second ring, is configured for spatial reuse. Further, at least one first node is coupled to the first ring, and at least one second

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node is coupled to the second ring. The first node is an end station. The data communications network further includes a first bridge configured to link the first ring to the second ring, and a second bridge configured to link the second ring to the third ring. As recited in amended claim 1, the second bridge is operative to learn an association between the first bridge and the end station coupled to the first ring, and, upon receiving a packet destined for the end station, to forward the received packet as a broadcast transmission on the second ring between the second bridge and the first bridge in a manner indicating that the packet is to be examined by each of the at least one second node coupled to the second ring, in the event that the association between the first bridge and the end station coupled to the first ring has not yet been learned. In addition, the second bridge is operative, upon receiving a packet destined for the end station, to forward the received packet as a unicast transmission on the second ring between the second bridge and the first bridge, in the event that the association between the first bridge and the end station coupled to the first ring has been learned.

On page 8 of the official action, the Examiner states that "broadcasting" is defined as a transmission to multiple, unspecified recipients. The Examiner further states that the

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"flooding" technique disclosed in the Behzadi reference includes, if the destination of the packet is unknown, forwarding the packet on all ports without specifying a recipient. The Examiner then concludes that Behzadi's flooding technique teaches the claimed broadcasting of a packet because the packet is sent on multiple ports without specifying a recipient.

The Applicants respectfully submit, however, that the official action has failed to consider the claimed subject matter "as a whole" by not taking into account all of the limitations of base claim 1. Specifically, the Applicants submit that the official action has failed to consider the first bridge and the second bridge, as recited in claim 1. Moreover, to more specifically claim the present invention, the Applicants have amended claim 1 to recite that the data communications network comprises a plurality of data communications rings including a first ring, a second ring, and a third ring. The Applicants have also amended claim 1 to affirmatively recite that the network includes a first bridge linking the first ring to the second ring, and a second bridge linking the second ring to the third ring.

The Applicants respectfully submit that the Behzadi reference neither teaches nor suggests a data communications network that includes a plurality of data communications rings including a

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first ring, a second ring, and a third ring, a first bridge linking the first ring to the second ring, and a second bridge linking the second ring to the third ring, as recited in amended base claim 1. Instead, the Behzadi reference merely discloses a group of network nodes 330, 332, 334, 336, 338, 340, 342 that are connected by transmission links to form a single ring (see column 6, lines 8-10, and Fig. 3, of Behzadi). Because Behzadi merely discloses, in Fig. 3, the plurality of nodes 330, 332, 334, 336, 338, 340, 342 coupled to the single ring, Behzadi neither teaches nor suggests a bridge configured to link that single ring to another ring, much less two bridges (i.e., a first bridge and a second bridge) configured to link a first ring to a second ring, and to link the second ring to a third ring, respectively, as recited in amended claim 1.

In addition, because Behzadi fails to disclose first and second bridges linking the first ring to the second ring, and linking the second ring to the third ring, respectively, Behzadi neither teaches nor suggests an important advantage derived from the data communications network of amended base claim 1, namely, the ability to perform a "directed bridging" technique (see page 6, lines 27-30, of the application). Unlike the flooding technique disclosed by Behzadi, in which packets are forwarded

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from a source node to a destination node once the location of the destination node is known, the data communications network of amended claim 1 employs the directed bridging technique to forward packets as unicast transmissions from the second bridge to the first bridge, once the association between the first bridge and the end station has been learned by the second bridge. The Applicants respectfully point out that the unicast transmission of amended claim 1 does not forward a packet from source-to-destination like the flooding technique of Behzadi, but instead employs the directed bridging technique to forward the packet from the second bridge to the first bridge, i.e., from bridge-to-bridge. The first bridge can then forward the packet to its intended destination, i.e., the end station coupled thereto. To exploit the spatial reuse capability of data communications rings, the claimed network employs the directed bridging technique, which uses unicast transmission wherever possible, thereby reducing the need for bandwidth-wasting broadcast transmission (see page 6, lines 27-30, of the application). The Applicants respectfully submit that the Behzadi reference neither teaches nor suggests such an important advantage.

Because the Behzadi reference neither teaches nor suggests a data communications network that includes a plurality of data

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communications rings including a first ring, a second ring, and a third ring, a first bridge linking the first ring to the second ring, and a second bridge linking the second ring to the third ring, in which a received packet is forwarded by the second bridge as a broadcast transmission on the second ring between the second bridge and the first bridge in a manner indicating that the packet is to be examined by each second node coupled to the second ring in the event that the association between the first bridge and an end station coupled to the first ring has not yet been learned, and a received packet is forwarded by the second bridge as a unicast transmission on the second ring between the second bridge and the first bridge in the event that the association between the first bridge and the end station coupled to the first ring has been learned, as recited in amended base claim 1, the Applicants respectfully submit that the Behzadi reference does not anticipate amended claim 1 and the claims depending therefrom. For at least the reasons discussed above with reference to amended claim 1, the Applicants further submit that the Behzadi reference does not anticipate amended base claim 9 and the claims depending therefrom. Accordingly, it is respectfully submitted that the rejections of claims 1-18 under 35 U.S.C. 102 should be withdrawn.

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In view of the foregoing, it is respectfully submitted that the present application is in a condition for allowance. Early and favorable action is respectfully requested.

The Examiner is encouraged to telephone the undersigned Attorney to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

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